



*Nitrate contamination can cause “blue baby syndrome” and lead to the death of infants. When their well became contaminated with nitrate, residents of Sil Nakya, a Tohono O’Odham community, were forced to find another source of water. The pictured transmission line now brings water from a neighboring community 11 miles away.*



# Appendix E–Glossary

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**Acute health effects:** health effects resulting from exposure to a contaminant that causes severe symptoms to occur quickly—often within a matter of hours or days. Examples include gastrointestinal illness and “blue baby syndrome.”

**“Blue baby syndrome”:** a potentially fatal condition for infants where nitrate reduces the blood’s ability to carry oxygen.

**Capital improvement plan (CIP):** a document produced by a local government, utility, or water system that thoroughly outlines, for a specified period of time, all needed capital projects, the reason for each project, and their costs.

**Chafee-Lautenberg Report to Congress:** a Report to Congress prepared in response to a request in EPA's 1993 Appropriation Act. The Chafee-Lautenberg Report included a figure of \$8.6 billion in 1991 dollars for capital costs for SDWA compliance. Inflated to the 1995 dollars used in the Needs Survey, this equates to \$9.7 billion. (EPA Publication Number 10-R-93-000, September 1993)

**Chronic health effects:** health effects resulting from long-term exposure to low concentrations of certain contaminants. Cancer is one such health effect.

**Coliform bacteria:** a group of bacteria whose presence in a water sample indicates the water may contain disease-causing organisms.

**Community water system:** a public water system that serves at least 15 connections used by year-round residents or that regularly serves at least 25 residents year-round. Examples include cities, towns, and communities such as retirement homes.

***Cryptosporidium parvum*:** a protozoan parasite (often referred to as *Cryptosporidium*) that causes the disease cryptosporidiosis. This pathogenic organism is ubiquitous in surface water, including surface water used as a drinking water source. *Cryptosporidium* lives in the digestive tract of warm-blooded animals and most often reaches surface water bodies through contamination from sewage, agriculture (e.g., run-off from cattle feed lots and pastures), or wildlife activity.

**Current infrastructure needs:** new facilities or deficiencies in existing facilities identified by the State or system. Water systems should begin construction for current needs as soon as possible to avoid a threat to public health.

**Engineer's report:** a document produced by a professional engineer that outlines the need and cost for a specific infrastructure project.

**Existing regulations:** drinking water regulations promulgated under the authority of the Safe Drinking Water Act by EPA before publication of this report; existing regulations can be found in the Code of Federal Regulations (CFR) at 40 CFR 141.

**Finished water:** water that is considered safe and suitable for delivery to customers.

**Future infrastructure needs:** infrastructure deficiencies that a system expects to address in the next 20 years due to predictable deterioration of facilities. Future infrastructure needs do not include current infrastructure needs. Examples are storage facility and treatment plant replacement where the facility currently performs adequately, but will reach the end of its useful life in the next 20 years. Needs solely to accommodate future growth are not included in the report.

***Giardia lamblia*:** a protozoan parasite (often referred to as *Giardia*) that causes the disease giardiasis. This pathogenic organism is ubiquitous in surface water, including surface water used as a drinking water source. *Giardia* lives in the digestive tract of warm-blooded animals and most often enters surface water bodies through contamination from sewage, run-off from cattle feed lots, or wildlife activity.

**Ground water:** any water obtained from a source beneath the surface of the ground.

**Ground water under the direct influence of surface water:** any water obtained from a source beneath the surface of the ground that has vulnerabilities to contamination similar to surface water. For regulatory purposes, direct influence is determined for individual sources in accordance with State law, regulation, and policy.

**Growth:** expansions of population, service area, or industrial uses projected to occur after the time of the survey. Capital improvement needs planned solely to accommodate projected future growth are not included in the survey. Projects can, however, be designed for growth expected during the design-life of the project. For example, the survey would allow a treatment plant needed now and expected to treat water for 20 years. Such a plant could be designed for the population anticipated to be served at the end of the 20-year period.

**Infrastructure needs:** the capital costs associated with ensuring the continued protection of public health through rehabilitating or building facilities needed for provision of safe drinking water. Categories of need include source development and rehabilitation, treatment, storage, and transmission and distribution. Operation and maintenance needs are not considered infrastructure needs and are not included in this report. A portion of infrastructure needs is for SDWA compliance.

**Large water system:** in this report, this phrase refers to a community water system serving more than 50,000 people.

**Medium water system:** in this report, this phrase refers to a community water system serving from 3,301 to 50,000 people.

**Microbiological contamination:** the significant occurrence in a water supply of protozoan, bacteriological, or viral contaminants.

**Non-community water system:** a public water system that is not a community water system and that serves a non-residential population of at least 25 individuals or 15 service connections daily for at least 60 days of the year. Examples include schools and churches.

**Pathogen:** a disease causing organism.

**Public water system:** a system for the provision of water for human consumption, if the system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.

**Safe Drinking Water Act (SDWA):** a law passed by Congress in 1974 and amended in 1986 and 1996 to ensure that public water systems provide safe drinking water to consumers. (42 U.S.C.A. §§300f to 300j-26)

**SDWA need:** a capital expenditure required for compliance with SDWA regulations.

**SDWA-related need:** a capital expenditure required for distribution piping replacement. Distribution piping replacement is considered a SDWA-related need because the monitoring required under the TCR helps to identify problems in the distribution system.

**Small water system:** in this report, this phrase refers to a community water system serving 3,300 people or fewer. This definition was chosen based on resource constraints and system capabilities. Other definitions have been used. For example, the SDWA at §1452(a)(2) defines a small system as a system that serves fewer than 10,000 people.

**Source rehabilitation and development:** a category of need that includes the costs involved in developing or improving sources of water for communities.

**State:** in this report, this term refers to all 50 States of the United States, Puerto Rico, the District of Columbia, American Samoa, Guam, the Northern Mariana Islands, and the Virgin Islands. (See definition of "Water systems in the States.")

**Storage:** a category of need that addresses finished water storage needs faced by community water systems.

**Surface water:** all water which is open to the atmosphere and subject to surface run-off including streams, rivers, and lakes.

**Transmission and distribution:** a category of need that includes replacement or rehabilitation of transmission or distribution lines which carry drinking water from the source to the treatment plant or from the treatment plant to the home.

**Treatment:** a category of need that includes conditioning water or removing microbiological and chemical contaminants. Filtration of surface water sources, pH adjustment, softening, and disinfection are examples of treatment.

**Waterborne disease outbreak:** the significant occurrence of acute infectious illness, epidemiologically associated with the ingestion of water from a public water system.

**Water systems in the States:** in this report, this phrase refers to water systems regulated by any of the 50 States of the United States, Puerto Rico, the District of Columbia, American Samoa, Guam, the Northern Mariana Islands, and the Virgin Islands. This includes those States and territories for which the EPA serves as the primary regulatory body. This group does not include American Indian or Alaska Native water systems.

**Watering point:** a central source from which people without piped water can draw drinking water and transport it to their homes.